

# Stock Status Report 2013

| Species and Stock                 | Status                                                                              |                                                                                   |                                                                                     |          |         | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | Viable                                                                              | Recovering                                                                        | Concern                                                                             | Depleted | Unknown |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Bass, Black Sea</b>            |                                                                                     |                                                                                   |                                                                                     |          |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| North of Hatteras                 |                                                                                     |  |                                                                                     |          |         | Recent stock assessments by the National Marine Fisheries Service's Northeast Fisheries Science Center were not accepted for this stock based on uncertainties in life history patterns and abundance surveys for this species. However, there are no clear signs of overfishing on the stock and it is considered to be recovering. More data collection and analysis are required before uncertainty in the assessment can be addressed. Until that time a catch-based management strategy will be used to set annual measures.                                                                                         |
| South of Hatteras                 |    |                                                                                   |                                                                                     |          |         | The stock is recovering under a federally managed rebuilding plan which went into place in 2006. A 2013 stock assessment indicated the stock is not overfished and has met the rebuilding plan's target.                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Bass, Striped</b>              |                                                                                     |                                                                                   |                                                                                     |          |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Albemarle Sound and Roanoke River |    |                                                                                   |                                                                                     |          |         | Based on results of the 2010 stock assessment the stock is not experiencing overfishing and biomass remains high. The stock age structure is broad including fish 17 years old. The final plan and rules for Amendment 1 to the N.C. Estuarine Striped Bass Fishery Management Plan were approved by the N.C. Marine Fisheries Commission in February 2013 and by the N. C. Wildlife Resources Commission in May 2013. The rules become effective for the respective commissions June 1 and Aug. 1, 2013. There were no major changes to the current commercial and recreational striped bass management measures.        |
| Atlantic Ocean Migratory Stock    |  |                                                                                   |                                                                                     |          |         | Based on results of the Atlantic States Marine Fisheries Commission 2010 updated stock assessment, Atlantic coast striped bass are not overfished and overfishing is not occurring. The model estimates that the resource remains at a high level of abundance with female spawning stock biomass well above the target level. North Carolina is host to several different stocks of striped bass. One is the Atlantic migratory stock that over-winters off southeastern Virginia and northeastern North Carolina. In years with mild winters, they may not migrate into North Carolina waters, as was the case in 2012. |
| Central/Southern                  |                                                                                     |                                                                                   |  |          |         | The lack of adequate data causes the Central Southern Management Area stocks to be quantitatively assessed as unknown and to be listed as "concern". The need for continued conservation management efforts are supported by the truncated size and age distributions, low overall abundance, and the absence of older fish in the spawning ground surveys. Amendment I to the N.C. Estuarine Striped Bass Fishery Management Plan was approved by the MFC in February 2013.                                                                                                                                              |
| <b>Bluefish</b>                   |  |                                                                                   |                                                                                     |          |         | The Atlantic stock of bluefish is not overfished and is not experiencing overfishing. The Atlantic States Marine Fisheries Commission Bluefish Technical Committee continues to work on improving and refining bluefish age data and the bluefish stock assessment.                                                                                                                                                                                                                                                                                                                                                       |

| Species and Stock  | Status                                                                              |                                                                                    |                                                                                     |                                                                                     |                                                                                    | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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|                    | Viable                                                                              | Recovering                                                                         | Concern                                                                             | Depleted                                                                            | Unknown                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Croaker, Atlantic  |                                                                                     |                                                                                    |    |                                                                                     |                                                                                    | Atlantic croaker is not experiencing overfishing. Estimates of spawning stock biomass were too uncertain to precisely determine overfished stock status. However, given that biomass has been increasing and the age structure of the population has been expanding since the late 1980s, it is unlikely the stock is in trouble.                                                                                                                                                  |
| Dolphin            |    |                                                                                    |                                                                                     |                                                                                     |                                                                                    | The South Atlantic Fishery Management Council's Dolphin Wahoo Fishery Management Plan was approved in 2004. The South Atlantic Fishery Management Council is developing Amendment 5 to the plan. The amendment will revise acceptable biological catches, annual catch limits, sector allocations, accountability measures, and annual catch targets implemented through the Comprehensive Annual Catch Limit Amendment for Dolphin. A new stock assessment is scheduled for 2015. |
| Drum, Black        |                                                                                     |                                                                                    |                                                                                     |                                                                                     |  | Concern for the stock has been expressed because fishing effort has increased on the stock since the 1980s, and a majority of black drum harvested is young, potentially juvenile fish. It is unknown if the stock is overfished. The Atlantic States Marine Fisheries Commission has developed a draft fishery management plan and a coast wide stock assessment is to be completed in 2014.                                                                                      |
| Drum, Red          |                                                                                     |  |                                                                                     |                                                                                     |                                                                                    | Overfishing is not occurring. A stock assessment completed in 2009 by the Atlantic States Marine Fisheries Commission indicates that the population is above the overfishing threshold and likely above or very near the management target.                                                                                                                                                                                                                                        |
| Eel, American      |                                                                                     |                                                                                    |                                                                                     |  |                                                                                    | The stock was declared depleted by the 2012 Atlantic States Marine Fisheries Commission benchmark stock assessment. Stock status is poorly understood due to non-standard sampling protocols across the species' range. Reliable indexes of abundance of this species are scarce. The Atlantic States Marine Fisheries Commission is currently considering management options for Addendum III to the American Eel Interjurisdictional Fishery Management Plan.                    |
| Flounder, Southern |                                                                                     |                                                                                    |                                                                                     |  |                                                                                    | Based on the N.C. Division of Marine Fisheries 2009 stock assessment, the southern flounder stock is overfished and overfishing is occurring. The Southern Flounder Fishery Management Plan Amendment 1 was approved in February 2013 and a new stock assessment is planned for 2014.                                                                                                                                                                                              |
| Flounder, Summer   |  |                                                                                    |                                                                                     |                                                                                     |                                                                                    | The 2012 National Marine Fisheries Service's Northeast Fisheries Science Center stock assessment indicated the stock was not overfished and overfishing did not occur in 2011. A new benchmark stock assessment will be completed in 2013.                                                                                                                                                                                                                                         |
| Grouper, Gag       |                                                                                     |                                                                                    |  |                                                                                     |                                                                                    | The stock is not overfished but overfishing is occurring. A federal management plan is restricting harvest to end overfishing.                                                                                                                                                                                                                                                                                                                                                     |

| Species and Stock         | Status                                                                              |                                                                                     |                                                                                     |                                                                                     |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                           | Viabie                                                                              | Recovering                                                                          | Concern                                                                             | Depleted                                                                            | Unknown                                                                            | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Herring, River</b>     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Albemarle Sound           |                                                                                     |                                                                                     |                                                                                     |    |                                                                                    | The N.C. Marine Fisheries Commission implemented a no harvest provision for commercial and recreational fisheries in joint and coastal waters of the state, beginning with the 2007 season. Current research is being conducted by the N.C. Division of Marine Fisheries in the Albemarle Sound area to re-evaluate spawning habitat, expand juvenile sampling, and monitor the Chowan River adult spawning stock. A N.C. Sustainable Fishery Plan was approved and demonstrates the sustainability of the discretionary harvest as required by Amendment 2 to the Atlantic States Marine Fisheries Commission Shad and River Herring Fishery Management Plan if any fisheries were to remain open. Development of Amendment 2 to the N.C. River Herring Fishery Management Plan has begun, and changes, if any, will take effect in 2015. |
| Other Areas               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  | No current sampling program.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Kingfishes</b>         |                                                                                     |                                                                                     |                                                                                     |                                                                                     |  | The N.C. Division of Marine Fisheries fishery management plan completed in 2007 indicated a healthy age structure in the stock along with increasing trends in juvenile abundance. Commercial and recreational landings increased in 2012 compared to 2011.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Mackerel, King</b>     |                                                                                     |                                                                                     |   |                                                                                     |                                                                                    | Based on the 2008 South Atlantic Fishery Management Council stock assessment, the South Atlantic king mackerel stock is not overfished. It is uncertain whether overfishing is occurring. A new assessment is scheduled for 2013.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Mackerel, Spanish</b>  |  |                                                                                     |                                                                                     |                                                                                     |                                                                                    | Based on the 2012 South Atlantic Fishery Management Council stock assessment, the Spanish mackerel stock in the South Atlantic is not overfished and is not undergoing overfishing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Menhaden, Atlantic</b> |                                                                                     |                                                                                     |  |                                                                                     |                                                                                    | Based on the 2010 benchmark stock assessment, Atlantic menhaden are experiencing overfishing. It is unknown whether the stock is overfished. The Atlantic States Marine Fisheries Commission Atlantic Menhaden Board approved Amendment 2 to the fishery management plan in December 2012.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Monkfish</b>           |                                                                                     |  |                                                                                     |                                                                                     |                                                                                    | Based on revised biomass reference points, National Marine Fisheries Service no longer considers the northern or southern stocks overfished. The biomass indexes for both stocks are above the minimum biomass threshold and biomass target index.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Mullet, Striped</b>    |  |                                                                                     |                                                                                     |                                                                                     |                                                                                    | The stock is not overfished. Landings for 2012 were within management threshold limits established in the 2006 fishery management plan. Historically, the commercial fishery has had sustained landings similar to current levels.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Reef Fish (A)</b>      |                                                                                     |                                                                                     |  |                                                                                     |                                                                                    | Of the 60 species in the South Atlantic Fishery Management Council unit, several are considered overfished. The overfished stocks include snowy grouper, speckled hind, red porgy, red snapper, red grouper, and Warsaw grouper.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Seatrout, Spotted</b>  |                                                                                     |                                                                                     |                                                                                     |  |                                                                                    | The 2009 N.C. spotted seatrout stock assessment indicated that the stock in North Carolina and Virginia has been overfished and overfishing has been occurring throughout the entire 18-year time series. Last year's mild winter likely enabled the stock to partially recover from the previous two unusually cold winters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

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|                   | Viable                                                                              | Recovering | Concern                                                                             | Depleted | Unknown                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Scup              |    |            |                                                                                     |          |                                                                                      | The 2011 stock assessment update completed by the National Marine Fisheries Service's Northeast Fisheries Science Center indicated the stock was not overfished and overfishing was not occurring in 2010. With greatly improved recruitment and low fishing mortality rates since 1998, the stock is considered rebuilt and viable. In 2012, the Atlantic States Marine Fisheries Commission and Mid-Atlantic Fishery Management Council initiated the development of a draft amendment to the Scup Fishery Management Plan to consider revisions to seasonal and sector allocations.                                                |
| Shad, American    |                                                                                     |            |    |          |                                                                                      | Commercial landings increased in 2012, and were above the 10-year average. The 2007 Atlantic States Marine Fisheries Commission coast-wide stock assessment concluded that the Albemarle Sound area stocks were stable, but well below historical levels and the stock status of the other systems in North Carolina were unknown. The assessment also indicated that the majority of stocks along the East Coast are at all-time lows and continue to decline despite current management efforts. North Carolina adopted an American Shad Sustainable Fishery Plan to meet Atlantic States Marine Fisheries Commission requirements. |
| Shad, Hickory     |                                                                                     |            |                                                                                     |          |    | Commercial landings declined again in 2012 for the third straight year after increasing from 2007 to 2009. Landings once again fell below the 10-year average. Two Amendments to the Shad and River Herring Fishery Management Plan recently approved by the Atlantic States Marine Fisheries Commission do not directly address hickory shad. The N.C. Division of Marine Fisheries has not conducted any directed sampling since 1993.                                                                                                                                                                                              |
| Sharks            |                                                                                     |            |  |          |                                                                                      | The Atlantic States Marine Fisheries Commission has developed a Coastal Shark Fishery Management Plan and National Marine Fisheries Service includes sharks in its Consolidated Atlantic Highly Migratory Species Fishery Management Plan. Recent assessment results indicate great uncertainty about the various shark species. The current status is concern because of the overfished status of sandbar, dusky, blacknose, and porbeagle sharks.                                                                                                                                                                                   |
| Sheepshead        |                                                                                     |            |                                                                                     |          |  | Sheepshead were removed from a federal fishery management plan, leaving management of the fishery to the state. The division is seeking proclamation authority from the N.C. Marine Fisheries Commission to manage the species.                                                                                                                                                                                                                                                                                                                                                                                                       |
| Spiny Dogfish     |  |            |                                                                                     |          |                                                                                      | Spiny dogfish are currently managed under a joint Mid-Atlantic Fishery Management Council and New England Fishery Management Council fishery management plan in federal waters (3 to 200 miles) and the Atlantic States Marine Fisheries Commission Spiny Dogfish Interstate Fishery Management Plan in state waters (0 to 3 miles). The 2009 Transboundary Resource Assessment Committee assessment update indicates that the spiny dogfish stock is considered to be rebuilt.                                                                                                                                                       |

| Species and Stock                | Status                                                                              |            |                                                                                     |                                                                                     |                                                                                    | Comments                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                  | Viable                                                                              | Recovering | Concern                                                                             | Depleted                                                                            | Unknown                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                  |
| Spot                             |                                                                                     |            |    |                                                                                     |                                                                                    | Recreational and commercial landings decreased in 2012 to historical lows. However, juvenile abundance increased. In 2011, the Atlantic States Marine Fisheries Commission approved an Omnibus Amendment for Spot. The amendment updates the plan with requirements under the Atlantic Coastal Fisheries Cooperative Management Act and the Interstate Fishery Management Program Charter.       |
| Sturgeon, Atlantic               |                                                                                     |            |                                                                                     |    |                                                                                    | The ASMFC is responsible for managing this species and considers the stocks to be depleted along the Atlantic coast. There is a coast-wide prohibition on possession. On April 5, 2012, NMFS listed the Carolina Distinct Population Segment of Atlantic sturgeon as a federally endangered species.                                                                                             |
| Weakfish<br>(Gray Trout)         |                                                                                     |            |                                                                                     |    |                                                                                    | The weakfish stock along the Atlantic coast is at a level of low abundance. Coast-wide landings are near the lowest levels on record. The most recent assessment indicates that the cause is likely due to factors other than fishing mortality. The Atlantic States Marine Fisheries Commission has set strict harvest limits in response to the decline in an effort to aid in stock recovery. |
| <b>Shellfish and Crustaceans</b> |                                                                                     |            |                                                                                     |                                                                                     |                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                  |
| Clam, Hard                       |                                                                                     |            |                                                                                     |                                                                                     |  | Based on the best available indicators, harvest levels in most areas appeared relatively constant in recent years. Amendment 1 of the fishery management plan was completed in 2008. Data limitations prevent conducting a hard clam stock assessment and calculating sustainable harvest.                                                                                                       |
| Crab, Blue                       |                                                                                     |            |  |                                                                                     |                                                                                    | Concern for the blue crab stock is due to reduced landings below historical levels. A 2011 stock assessment indicates the blue crab stock is not overfished, but overfishing cannot be determined.                                                                                                                                                                                               |
| Oyster, Eastern                  |                                                                                     |            |  |                                                                                     |                                                                                    | Based on the best available indicators, harvest levels in most areas appeared relatively constant in recent years. Amendment 1 of the FMP was completed in 2008. Data limitations prevent DMF from conducting a hard clam stock assessment and calculating sustainable harvest.                                                                                                                  |
| Scallop, Bay                     |                                                                                     |            |                                                                                     |  |                                                                                    | High natural mortality from environmental change and predation cause annual variability in abundance. Sampling showed low abundance in all areas but Bogue Sound in 2012. The main harvest season (late January to March) was opened in 2013 in Bogue Sound and areas south to the N.C./S.C. state line due to Bogue Sound exceeding the 50percent opening trigger.                              |
| Shrimp(B)                        |  |            |                                                                                     |                                                                                     |                                                                                    | Annual shrimp stock status is determined mainly by environmental and recruitment conditions. Natural mortality far outweighs fishing mortality. The 2006 fishery management plan is currently going through an amendment process to address bycatch in the shrimp fishery.                                                                                                                       |
| <b>Totals</b>                    | <b>11</b>                                                                           | <b>3</b>   | <b>12</b>                                                                           | <b>6</b>                                                                            | <b>6</b>                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                  |



(A) The reef fish group includes about 60 species, while there are more than 40 species of sharks. Within these groups, individual species range from Viable to Overfished. The status indicated is for the group as a whole.  
 (B) Shrimp consists of 3 species — brown, pink and white.